

REMARKS

Claims 1-18, 22-55 and 78-80 are pending in this application. Claims 56-77 were previously canceled and claims 19-21 are canceled herein. Claims 1 and 26 have been amended herein. New claims 78-80 are added. In view of these amendments and remarks, Applicants respectfully request reconsideration of the claims.

Claims 1, 2, 6-10, 19, and 24 were rejected under 35 U.S.C. 102(e) as being anticipated by Currie, *et al.* (US Pub. 2004/0026765 A1).

Applicants have amended claim 1 to now recite that "the second semiconductor material is substantially outside a region underlying the first gate electrode". Examiner has asserted that layer 412 of Currie provides a "second semiconductor material." Note, however, that layer 412 extends throughout the channel region and underlies the gate electrode (see Figure 4). As such, Currie lacks the recited claim element of a second semiconductor material that "is substantially outside a region underlying the first gate electrode." For this reason, Applicants respectfully submit that claim 1 is patentably distinct over Currie.

Because claims 2, 6-10, 18, and 24 depend from claim 1, now amended, Applicants respectfully submit that claim 2, 6-10, 18, and 24 are allowable by reason of their dependence from claim 1 as well as for their further respective defining limitations.

Claims 3-5, 22 and 23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Currie *et al.* as applied to claim 1, and further in view of Fitzgerald, *et al.* (US Pub. 2002/0125471 A1). Claims 11-18 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Currie as applied to claims 1, 8, 9, and 10, and further in view of Yeo, *et al.* (US Pub. 2004/0173815 A1).

Claims 3-5, 11-18, 22-23 and 25 depend on claim 1, now amended, and incorporate the above discussed limitation regarding the second semiconductor material. Because at least this limitation distinguishes over the art of record, these claims are now allowable as well.

Claims 22 and 23 were further rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

Examiner recited that "The specification does not disclose how the gate dimensions relate to the carrier mobility in the channel region". Paragraph 0050 is now amended to add a description regarding the ratio of gate dimensions. Since added text is supported by claims 22 and 23, no new matter is added.

Accordingly, each of the pending claims 3-5, 11-18, 22, 23 and 25 is believed to be allowable.

Claims 26-36 and 41-55 were rejected under 35 U.S.C. 103(a) as being unpatentable over Akita, *et al.* (US 6,256,239 B1) in view of Currie. Claims 37-40 were rejected under 35 U.S.C. 103(a) as being unpatentable over Akita, *et al.* in view of Currie, *et al.* as applied to claim 26, and further in view of Yeo, *et al.*

Applicants have amended claim 26 to now recite that "the second semiconductor material is substantially outside a region underlying the first gate electrode". Examiner has asserted that layer 412 of Currie provides a "second semiconductor material." Note, however, that layer 412 extends throughout the channel region and underlies the gate electrode (see Figure 4). As such, Currie lacks the recited claim element of a second semiconductor material that "is substantially outside a region underlying the first gate electrode." For this reason, Applicants respectfully submit that claim 26 is not obvious over Akita in view of Currie. Accordingly, claims 26-36, 37-40, and 41-55 are believed to be allowable.


In addition, claims 19-21 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have cancelled claims 19-21 herein, and added a new claim 78 in independent form including all of the limitations of claims 1, 18 and 19. New claims 79 and 80 including all of the limitations of claims 20 and 21, respectively, are also added. It is respectfully submitted that each of the claims 78-80 is allowable, as indicated by the office action.

Examiner recited that "In re claim 19, Currie shows (fig. 4) that a portion of the second source and drain regions are formed in a third semiconductor material (430)." Since the recited element is in claim 18, and because claim 19 is objected to, Applicants believe that the Examiner intended to identify claim 18 rather than claim 19. Applicants have responded accordingly.

In view of the above, Applicants respectfully submit that the application is in condition for allowance and requests that the Examiner pass the case to issuance. If the Examiner should have any questions, Applicants request that the Examiner contact applicants' attorney at 972-732-1001 so that such issues may be resolved as expeditiously as possible. No fee is believed due in connection with this filing. However, should one be deemed due, the Commissioner is hereby authorized to charge the appropriate fees to Deposit Account No. 50-1065.

Respectfully submitted,

1 APRIL 2005
Date


Steve Slater
Attorney for Applicants
Reg. No. 35,361

Slater & Matsil, L.L.P.
17950 Preston Rd., Suite 1000
Dallas, Texas 75252-5793
Tel. 972-732-1001
Fax: 972-732-9218